

Remarks

(I) NEW REJECTIONS BY THE BOARD

New Rejection Under 35 U.S.C. § 112, second paragraph

In its decision, the Board of Patent Appeals and Interferences newly rejected claims 4-6 under 35 U.S.C. § 112, second paragraph, as being indefinite for recitation of the term “lymphangiogenesis”. Applicant respectfully traverses this rejection to the extent that it is applied to the claims, as amended.

The Board indicated that lymphangiogenesis does not appear to be a skin disorder (Board’s Decision, page 14, first full paragraph) and that those of skill in the art would not understand the meaning of the phrase “‘individual in need of treatment’ of lymphangiogenesis” (Board’s Decision, page 15, second paragraph). In response, Applicant amended claim 4 to recite the phrase “skin disorders associated with lymphangiogenesis” in place of the term “lymphangiogenesis”. Support for this amendment can be found in the specification, at least at page 5, lines 19-20 and 22-23. Thus claim 4, as amended, indicates that the individuals in need of treatment are those with *skin disorders associated with* lymphangiogenesis, and not simply individuals with lymphangiogenesis.

One of ordinary skill in the art is familiar with skin disorders associated with lymphangiogenesis, including Kaposi’s sarcoma (*see* Jussila and Alitalo, “Vascular Growth Factors and Lymphangiogenesis,” *Physiol. Rev.*, 82: 673-700, 687 (2002), previously submitted

AMENDMENT AND RESPONSE UNDER 37 C.F.R. § 41.50(b)(1)

with the Appeal Brief, a copy of which is enclosed), lymphangiomas (*see* Jusilla at page 687-688), neoplasm metastasis, edema, rheumatoid arthritis, and psoriasis.

Therefore, claim 4, as amended, and its dependent claims, claims 5 and 6, are definite.

Although the Board did not reject claim 17 under 35 U.S.C. § 112, second paragraph, as being indefinite for recitation of the term “lymphangiogenesis”, Applicant amended claim 17 in the same manner as claim 4 since it used similar terminology.

New Rejection Under 35 U.S.C. § 102

In its decision, the Board of Patent Appeals and Interferences newly rejected claims 4 and 5 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,654,312 to Andrulis, Jr., *et al.* (“Andrulis”). Applicant respectfully traverses this rejection to the extent that it is applied to the claims, as amended.

Andrulis

The Board indicated that Andrulis discloses the use of thalidomide for the treatment of inflammatory and autoimmune dermatoses including molluscum contagiosum (Board’s Decision, page 13, second full paragraph). In response, Applicant amended claim 4 to delete “thalidomides” from the list of angiogenesis inhibitors that can be used in the method. Andrulis does not disclose or suggest the use of the angiogenesis inhibitors recited in claim 4, as amended. Accordingly, claim 4 and dependent claim 5 are novel over Andrulis.

(2) REJECTIONS REVERSED BY THE BOARD

In its decision, the Board of Patent Appeals and Interferences reversed the rejection of claims 4-6 and 17 under 35 U.S.C. § 112, second paragraph. The Board held that the phrase “amount effective” recited in claim 4 is definite. In its decision, the Board of Patent Appeals and Interferences also reversed the rejection of claims 4 and 5 under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,190,918 by Deutch, *et al.* (“Deutch”), in view of U.S. Patent No. 6,482,810 by Brem, *et al.* (“Brem”) or U.S. Patent No. 5,654,312 by Andrulis, Jr., *et al.* (“Andrulis”). In its decision, the Board of Patent Appeals and Interferences also reversed the rejection of claims 4-6 as obvious over Deutch, in view of U.S. Patent No. 5,776,898 by Teicher, *et al.*, (“Teicher”).

(2) REJECTIONS AFFIRMED BY THE BOARD

Rejection Under 35 U.S.C. § 102

The Board of Patent Appeals and Interferences affirmed the rejection of claim 17 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,218,368 to Wirostko (“Wirostko”). Specifically, the Board indicated that Wirostko discloses that tetracyclines are known to have collagenase inhibition properties and are used chronically as therapy for diverse diseases including acne rosacea (Board’s Decision, page 5, last paragraph). The Board also held that the disclosure of “acne rosacea” reads on “rosacea”, which is listed in claim 17.

Applicant amended claim 17 to delete rosacea from the list of skin disorders to be inhibited. Wirostko does not disclose any of the remaining skin disorders recited in claim 17, as amended. Accordingly, claim 17, as amended, is novel over Wirostko.

Rejection Under 35 U.S.C. § 103

The Board of Patent Appeals and Interferences affirmed the rejection of claims 10-12 and 18 under 35 U.S.C. § 103(a) as being obvious in view of WO 95/18606 by Aggarwal ("Aggarwal"). The Board of Patent Appeals and Interferences also affirmed the rejection of claims 10-12 and 19 under 35 U.S.C. § 103(a) as being obvious over Arbiser, *et al.*, *J. Amer. Acad. Dermatol.*, 40(6):925-929 (June 1999) ("Arbiser"), in view of Thaloer, *et al.*, *Cell Growth & Differentiation*, 9:305-312 (1998) ("Thaloer"), and further in view of Aggarwal.

Aggarwal

The Board indicated that Aggarwal discloses a method of treating, among other things, basal cell carcinoma or squamous cell carcinoma by administering curcumin (Board's Decision, paragraph bridging pages 9 and 10). The Board also stated that Aggarwal disclosed treating "psoriasis, basal cell carcinoma, and squamous cell carcinoma." (Board's Decision, page 10, first full paragraph).

In response, Applicant amended claim 10 to delete "psoriasis", "basal cell carcinoma", and "squamous cell carcinoma" from the list of disorders to be treated. The mechanisms of action for the deleted disorders are different than the mechanisms of action for the remaining listed disorders. Aggarwal does not disclose or suggest treating the disorders listed in claim 10,

as amended, by administering an effective amount of a pharmaceutical composition comprising a curcuminoid in combination with a pharmaceutically acceptable carrier, where the carrier is an ointment for topical administration which contains between one-half percent (0.5%) and five percent (5%) of the curcuminoid or a polymer formulation for implantation. Therefore, claim 10 and dependent claims 11, 12 and 18 are non-obvious in view of Aggarwal.

Arbiser, in view of Thaloor, further in view of Aggarwal

As discussed above, the Board stated that Aggarwal discloses a method of treating basal cell carcinoma, squamous cell carcinoma or psoriasis by administering curcumin.

In response, Applicant amended claim 10 to delete “psoriasis”, “basal cell carcinoma”, and “squamous cell carcinoma” from the list of disorders to be treated. The mechanisms of action for the deleted disorders are different than the mechanisms of action for the remaining listed disorders. Aggarwal does not disclose or suggest treating the disorders listed in claim 10, as amended, by administering an effective amount of a pharmaceutical composition comprising a curcuminoid in combination with a pharmaceutically acceptable carrier, where the carrier is an ointment for topical administration which contains between one-half percent (0.5%) and five percent (5%) of the curcuminoid or a polymer formulation for implantation. Neither Arbiser nor Thaloor cure this deficiency. Therefore, claim 10 and its dependent claims are non-obvious over Arbiser, in view of Thaloor, and further in view of Aggarwal.

(4) CONCLUSION

Independent claim 4 has been amended to address the new rejections made by the Board. Independent claims 10 and 17 have been amended in view of the rejections that were affirmed by the Board. The claims should now be in condition for allowance. Allowance of claims 4-6, 10-12 and 17-19, as amended, is respectfully solicited.

Respectfully submitted,

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